

KESWICK  
URBAN SANITARY DISTRICT.

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ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1908.

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KESWICK :

T. BAKWELL, MAIN STREET,

1909.



# REPORT.

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## TO THE KESWICK URBAN DISTRICT COUNCIL.

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GENTLEMEN,—

It is my privilege to present to you my Annual Report for the year 1908.

*Vital Statistics* During this period there has been much variation in the state of the public health as indicated by the death rate which began high and decreased rapidly as the year advanced. Thus, during the first quarter, the deaths numbered 24; second quarter, 20; third, 14; and fourth, only 12.

A similar decrease in the number of births is also to be noted, viz., first quarter, 35; second, 20; third, 21; and fourth, 14; total, 90, and a rate per 1,000 of 20.

Estimating the population at 4,500, the death rate (Table I.) for the past year is 15·5 per 1,000 on deaths occurring in the district, and 16·2 per 1,000 when to these have been added three of persons who, though belonging to it, died in public institutions elsewhere.

As regards the causes (Table IV.) it will be seen that the number of deaths from Cancer is still on the increase, while Heart Disease, Apoplexy, and Bronchitis still hold prominent places. There were eight deaths from the Zymotic type of disease, viz., Whooping Cough 1, Influenza 1, Diarrhoea 2, Enteritis 1, and Phthisis 3, but none from notifiable diseases of this class.

Owing to a decrease in the number of births, and the number of deaths in infants remaining the same (12) as in 1907, the infantile mortality (or number of deaths under one year per 1,000 births) is higher, and now stands at 133·3, which is more than it ought to be.

Of the 12 deaths (Table V.) 9 occurred in legitimate children, and 3 in illegitimate, showing a very high rate among the latter. Other contributing causes are to be found in improper feeding and neglect on the part of parents; and it has been the custom in this district, with a view to combating these evil influences, to supply at the time of registration, a printed card of instruction in feeding and general hygiene. But though this has been used and appreciated, it is a question whether, in addition, special periodic visits by nurses or other persons competent to give advice, could not be arranged with advantage to child life.

*Zymotic Disease*      Thirteen cases of Diphtheria were notified during the year, chiefly in the months of April and May, and the type of the disease was more severe than has been experienced for some time. As the greatest number of cases occurred among the children of St. John's Schools, an examination of a number of these while at school revealed the case of one child suffering from the disease and mixing freely with her fellows. The school was immediately closed for a fortnight and the drains overhauled, when the defects referred to in my "Special Report" on the epidemic were discovered and rectified, a large portion of the drains being entirely relaid.

Ten out of the thirteen cases were removed to Hospital, and their homes disinfected. Antitoxin was, and still is, supplied free of charge by the Council, and full use is made of bacteriological diagnosis—also provided free. By this

method, out of 38 specimens sent for examination, 12 were found to contain the diphtheria bacillus. And since by this means only does it seem possible to declare a case free from infection, it is of great importance that no child having recently suffered from diphtheria should be allowed to return to school without having first obtained a medical certificate of freedom from infection based upon it.

*Scarlet Fever* has been almost unknown, there having been only five cases in all; two in January, of unknown origin; one in September, evidently infected outside this district; and two in November, not definitely accounted for—though an overcrowded house in one case would act as a contributing cause. All were removed to Hospital.

*Measles* is not a notifiable disease, but one case came to my knowledge in October of a child attending Brigham School. This school was consequently closed for the full incubative period and disinfected, and no further cases were reported. In December, the Keswick Secondary School became infected, but the advent of the Christmas holidays prevented any widespread dissemination of the disease.

*Chicken-pox* was rife among the scholars of the Crosthwaite Girls' School during the autumn, but I did not consider that closure would have any effect in checking it. Subsequently the Education Authority closed the school.

*Tuberculosis*.—There have been three deaths from Phthisis, and none from any other tubercular disease. No cases have been notified, notification being only voluntary; but advice as to means of prevention, &c., may safely be left in the hands of medical attendants, who also help by examining candidates for the Keswick Bed in the Sanatorium. In case of death, disinfection is carried out by the Sanitary Authority.



While results seem to prove the efficiency of the means of disinfection employed, experiments have shown that it is practically impossible thoroughly to disinfect such articles as clothing and bedding, except by super-heated steam, and the provision of an apparatus for this purpose is a very real necessity.

Among other factors which should in the future prove useful are the operation of the "Public Health Act Amendment Act, 1907," which it was resolved should be adopted last February. By its means greater powers will be obtained in dealing with infectious diseases (sect. 52), particularly as regards the milk supply (sect. 54), laundry (sect. 55), and provision of home nurses (sect. 67). House drains may be compulsorily tested and rectified where necessary (sect. 36, 37, 38); while in addition, provision is made for supplying an ambulance (sect. 58).

The "Notification of Births Act" has not been adopted as it was considered superfluous for our conditions; and the "Midwives Act" is practically inoperative, owing to there being no registered midwives practising in the district.

The general conditions as to housing, &c., remain much the same. Windows of cottages in King's Head Yard have been altered so as to admit more air, but others remain to be done in other quarters.

A scheme is on foot, by private enterprise, for the erection of a number of model Workmen's Dwellings, which it is hoped will succeed, as much of the accommodation now offered is far from good.

The Common Lodging Houses have been inspected and found well kept, though not conforming structurally with the bye-laws.

The Slaughter Houses, on inspection, have been found well kept and the bye-laws complied with. No diseased carcase has been found at any time.

Forty-one plans for the erection of new houses or addition to old, have been passed, and their building and drainage supervised by the Surveyor.

*Water Supply* The Water Supply, derived from Skiddaw, remains pure and abundant; and, though a particularly soft water, has been found by recent analysis to have so slight a solvent action on lead that it need not be considered. The greatest amount of lead found was .02 grains per gallon.

The gathering grounds are secure against pollution. The reservoirs have been regularly emptied and cleaned, and inspection and cleaning chambers placed on four conduit pipes.

A 3in. main has been laid to Low Briery to meet a long felt want of a pure water supply for the Mill and Cottages there situated.

Six hundred yards of new mains have been laid in various parts of the district, to replace those of 1856 which were either corroded or worn out. All new houses have been connected and new services laid to six old.

*Milk Supply* The Milk Supply is derived from sources both within and beyond the district, but all are under the supervision of the Veterinary Inspector who visits them quarterly, and has reported (1) no cases of disease among cattle; (2) two cases of over-crowding in the rural district; and (3) one town byre requiring to be redrained and floored. These matters, and others arising in connection with the Act, have received the attention of the Council.

*Sewerage and Sewage Disposal.* A new sewer has been laid from the back of Blencathra-street to Skiddaw-street, and those at High Hill and St. Herbert-street partially relaid. All are regularly flushed. The Disposal Works (settling tank and continuous filtration) have been in active operation throughout the year. The irrigation land has been ploughed, the receiving tanks cleaned out monthly, and a new storm water over-flow pipe laid from them to the stream on the north of the sewage disposal land.

*Factory and Workshops Act* There are now 37 Workshops and 20 Factories on the register. All are under the supervision of the Sanitary Inspector, H.M. Inspector of Factories, and the Medical Officer of Health. Matters referred to the Council by H.M. Inspector have received attention. Sanitary conveniences have been improved, and one bakehouse is shortly to undergo reconstruction. There are no underground bake-houses in the district.

*Rainfall and Sunshine* I am indebted to Mr. A. Mitchell-Dawson for kindly furnishing the following record of the Rainfall, and to Mr. Swinburn for that of the Sunshine for 1908 :—

#### RAINFALL IN 1908.

The gauge funnel is 5in. in diameter, it is placed 7in. above ground, and 296ft. above sea level.

Month.	Total Depth.		Greatest fall in 24 hours.				No. of days.	
	Inches.		Inches.		Date.		on which .01 or more recorded.	
January ...	5.93	...	1.01	...	15th	...	18	
February ...	4.65	...	1.02	...	14th	...	23	
March ...	5.74	...	.81	...	8th	...	22	
April ...	1.89	...	.33	...	30th	...	19	



May...	...	3'11	...	'44	...	2nd	...	20
June	...	2'95	...	1'52	...	13th	...	13
July...	...	3'77	...	'80	...	25th	...	18
August	...	7'52	...	1'56	...	26th	...	18
September...	...	5'17	...	'91	...	26th	...	21
October	.	2'38	...	'75	...	28th	...	11
November	...	5'01	...	'71	...	21st	...	18
December	...	4'95	...	'91	...	8th	...	22

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Total... 53'07 223

Average yearly rainfall here for past 36 years, 58'47oins.  
upon 208'027 days.

Highest yearly rainfall here for past 36 years, 84'57ins. on  
252 days in 1903. Lowest do., 42'34in. on 172 days in 1887.

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### SUNSHINE FOR 1908.

			Hrs.	Min.		Days.
January	...	...	67	35	upon	17
February	...	...	48	10	„	17
March...	...	...	85	20	„	19
April	...	...	117	0	„	24
May	...	...	180	50	„	27
June	...	...	210	25	„	25
July	...	...	167	20	„	25
August	...	...	179	0	„	27
September	...	...	79	15	„	20
October	...	...	122	40	„	24
November	...	...	65	5	„	18
December	...	...	25	40	„	12
			<hr/>	<hr/>		<hr/>
			1348	20		255

Average for past six years, 1277hrs. 35m. upon 270 days.

Highest temperature recorded, 84'5° on 2nd July.

Lowest „ „ 17'0° on 4th January.

Your obedient servant,

J. R. BURNETT,

Medical Officer of Health.

## WHINLATTER HOSPITAL FOR INFECTIOUS DISEASES.

This Hospital is still free to all ratepayers, and has provided accommodation and isolation for fifteen out of the eighteen cases notified during the year. Of these, five were children suffering from Scarlet Fever, and ten (also children) with Diphtheria. All were discharged recovered with the exception of two cases of scarlet fever, which remained under treatment at the end of the year. The average period in hospital was—for the scarlet fever cases, 52·8 days, and for the diphtheria, 40·3.

A larger number of diphtheria cases have been admitted than in any previous year, and at one time, when both classes of disease were present together, the difficulties of ensuring complete isolation from one another were found so great that it is a question whether, except under special circumstances, we are justified in making the attempt. There were always sufficient beds to meet the demand, and the duties of caretakers and nurses have been most efficiently performed. According to agreement with the Royal Scottish Nursing Institute, nurses are now obtained on favourable terms, and with a guarantee that they have had at least three years' training, and have been specially trained in fever nursing.

The single kitchen oven, having been found inadequate, is shortly to be supplemented by a small range in the wash-house. The installation of a telephone would be an immense improvement, and amounts almost to a necessity when serious cases are under treatment.

Your obedient servant,

J. R. BURNETT,

Medical Superintendent.

Vital Statistics of whole District during 1908 and Previous Years.

TABLE I.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.					Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Num-ber.	Rate.*	Under 1 Year of Age.		At all Ages.						Num-ber.	Rate.*
				Num-ber.	Rate per 1,000 Births registered	Num-ber.	Rate.*						
I	2	3	4	5	6	7	8	9	10	11	12	13	
1898	4451	101	22'69	9	89	64	14'60	4					
1899	"	113	25'38	7	61'95	62	11'67						
1900	"	99	22'24	15	151'52	78	15'27	6					
1901	"	102	22'91	16	156'86	59	13'25	1	0				
1902	"	89	19'99	7	78'65	59	13'25	5	3	1	57	12'8	
1903	"	119	26'73	18	151'26	67	15'	3	3	0	64	14'37	
1904	"	94	21'11	11	117'02	63	14'15	2	0	0	63	14'15	
1905	"	107	24'03	11	102'8	65	14'6	6	3	2	64	14'37	
1906	"	86	19'31	10	116'27	65	14'6	5	3	0	62	13'92	
1907	"	101	22'69	12	118'81	61	13'7	5	2	4	63	14'15	
Averages for years 1898-1907	4451	101'1	22'71	11'6	114'41	64'3	14'44	5'2	2	1'16	62'16	13'96	
1908	4500	90	20	12	133'3	70	15'5	6	0	3	73	16'2	

\* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made are given on the back of this Table.

Area of District in acres  
(exclusive of area covered by water.) } 1,068

Total population at all ages, 4,500 ..... }  
Number of inhabited houses, 1,093 ..... } At Census of 1901.  
Average number of persons per house, 4'11 }

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
Mary Hewetson Cottage Hospital	Whinlatter Hospital for Infectious Diseases White Moss Smallpox Hospital Workhouse (Cockermouth) County Lunatic Asylum Cumberland Infirmary Silloth Convalescent Home Edinburgh Royal Infirmary Home for Incurables (Carlisle) Blencathra Sanatorium for Consumptives	Crichton Royal Institute, Dumfries
Is the Union Workhouse within the District? No.		



**TABLE III.**

**Cases of Infectious Disease notified during the  
Year 1908.**

Notifiable Disease.	CASES NOTIFIED IN WHOLE DISTRICT.							Removed to Hospital.
	At all Ages.	At Ages—Years.						
		Under 1	1 to 5.	5 to 15	15 to 25.	25 to 65.	65 and up-wards	
Small-pox ... ..								
Cholera ... ..								
Diphtheria (including Membranous croup)...	13		4	9				10
Erysipelas ... ..								
Scarlet fever...	5		2	3				5
Typhus fever...								
Enteric fever ... ..								
Relapsing fever ... ..								
Continued fever ... ..								
Puerperal fever ... ..								
Plague ... ..								
Phthisis (voluntary)...								
Totals ... ..	18		6	12				15

Isolation Hospital, Whinlatter, Cockermouth Rural District. Total available beds, 10; number of Diseases that can be concurrently treated, 2.

Small-pox Hospital, White Moss, Cockermouth Rural District. Total available beds, 4 ; number of Diseases that can be concurrently treated, 1.

**TABLE IV.****Causes of, and ages at, Death during Year 1908.**

CAUSES OF DEATH.  I	DEATHS AT THE SUBJOINED AGES.							Total Deaths in Public Institutions.
	All Ages. 2	Under 1 year 3	1 and under 5 4	5 and under 15 5	15 and under 25 6	25 and under 65 7	65 and upwards 8	
Small-pox ... ..								
Measles ... ..								
Scarlet-fever ... ..								
Whooping-cough ... ..	I	I						
Diphtheria (including Membranous croup ... ..								
Croup ... ..								
Fever { Typhus ... ..								
{ Enteric ... ..								
{ Other continued...								
Epidemic influenza ... ..	I						I	
Cholera ... ..								
Plague ... ..								
Diarrhœa ... ..	2	I		I				
Enteritis ... ..								
Puerperal fever ... ..	I	I						
Erysipelas ... ..								
Phthisis (Pulmonary Tuberculosis)...	3		I			2		
Other tuberculous diseases								
Cancer, malignant disease	II					3	8	I
Bronchitis ... ..								
Pneumonia ... ..	6	I				2	3	I
Pleurisy ... ..	2	I					I	
Other diseases of Respiratory organs ... ..	I					I		
Alcoholism ... ..								
Cirrhosis of liver ... ..								
Venereal diseases...								
Premature birth ... ..	2	2						
Diseases and accidents of parturition ... ..	I	I						
Heart diseases ... ..	13					5	8	2
Accidents ... ..	2					I	I	
Suicides ... ..								
Pernicious Anæmia ... ..	2						2	I
Hydrocephalus ... ..	I	I						
Apoplexy ... ..	6					4	2	
All other causes ... ..	18	3	2		I	3	9	I
All causes ... ..	73	12	3	I	I	21	35	6

## Infantile Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One year of Age.

Population—Estimated to middle of 1908—4,500.			
Births in the year	Legitimate, 83	Deaths in the year of	Legitimate infants, 9
	Illegitimate, 7		Illegitimate infants, 3
	Deaths from all Causes at all Ages, 70.		

Population—Estimated to middle of 1908—4,500.

Births in the year	legitimate, 83 illegitimate, 7	Deaths in the year of	legitimate infants, 9 illegitimate infants, 3
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Deaths from all Causes at all Ages, 70.

